

Listing of Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claim 1 (Canceled)

Claim 2 (Previously presented): The method of claim 5 wherein the integrity test is performed during each backwash of the membrane.

Claim 3 (Previously presented): The method of claim 5 wherein the integrity test is performed after a predetermined number of backwashes of the membrane.

Claim 4 (Previously presented): The method of claim 5 wherein the predetermined value corresponds to a Logarithmic Reduction Value of 4.

Claim 5 (Currently amended): A method of integrity testing a permeable hollow fiber membrane immersed in a liquid suspension comprising:

backwashing the membrane by displacing a liquid permeate within a membrane lumen through pores of the membrane in a direction opposite that of filtration with ~~by applying a gas applied at a pressure below a bubble point of the membrane to a the liquid permeate in a lumen within the membrane subsequent to filtering the liquid suspension through the membrane;~~
isolating the lumen of the membrane;
measuring a reduction in ~~the~~ a gas pressure within the lumen of the membrane; and
comparing the measured reduction in pressure against a predetermined value.

Claim 6 (Previously presented): The method of claim 5, wherein the integrity test is performed in about 30 seconds to one minute.

Claim 7 (Previously presented): The method of claim 5, wherein the integrity test is performed in five to ten seconds.

Claim 8 (Previously presented): The method of claim 5, further comprising:
commencing filtration through the membrane by providing a pressure differential across the membrane.

Claim 9 (Currently amended): A method of integrity testing a permeable hollow fiber membrane comprising:

backwashing a the membrane having a lumen and an external wall by displacing a liquid permeate within a membrane lumen through pores of the membrane in a direction opposite to that of a flow of liquid during filtration by applying a gas at a pressure below a bubble point of the membrane to a the liquid permeate within the membrane lumen of the membrane subsequent to filtering a feed liquid through the membrane;

measuring a rate of gas pressure decay within the lumen of the membrane over a predetermined period; and

comparing the measured rate of gas pressure decay with a predetermined value.

Claim 10 (Currently amended): The method of claim 9, further comprising the step of allowing a gas pressure in the lumen to increase to a predetermined level above a pressure on ~~the~~ an external wall of the membrane.

Claim 11 (Previously presented): The method of claim 10 wherein the step of allowing a gas pressure on the lumen side of the membrane walls to increase to a predetermined level above a pressure on the external wall is performed after the step of backwashing the membrane.

Claim 12 (Cancelled)

Claim 13 (Previously Presented): The method of claim 5, further comprising increasing the gas pressure in the lumen of the membrane to a predetermined level above a pressure on another side of the membrane.